



# MATERIAL SAFETY DATA SHEET

BNL MSDS#

## Industrial Hygiene Samples

**Manufacturer:** Brookhaven National Laboratory  
Brookhaven Science Associates, Inc.  
Building 120, Upton NY, 11973

**Phone Number:** 631-344-3900

**BNL Origination:**  
Safety & Health Services Division

**Emergency Phone:** 1-800-424-9300  
CHEMTREC

**MSDS Date:** December 29, 2011

**Supersedes:** none

### HAZARD SUMMARY

This MSDS covers %articles+ by OSHA definitions onto which trace amounts of metals (such as lead, cadmium, beryllium) or chemicals (organic or inorganic) in nano-gram to micro-gram quantities are potentially present. Many of the compounds present in trace quantities would be hazardous in larger quantities but pose no significant hazard in a quantities present in these samples.

The warnings in this MSDS are based on many years of handling this type of samples at BNL and many other locations. The recommended practices and personal protective controls that are applicable to hazardous substances have been graded to the trace quantities of chemicals that may be present.

### SECTION 1 IDENTITY INFORMATION

**Material Name:** Industrial Hygiene Samples

**Synonyms:** Sample media (cassette, tube, or wipe media) with trace of metals or inorganic/organic compounds

**CAS No.:** none

**Chemical Family:** %Article+ with possible trace of chemicals

### SECTION 2 PRODUCT INGREDIENTS

Hazardous Components (% Component)	OSHA PEL	ACGIH TLV
None*	--	--
Non-hazardous Components	OSHA PEL	ACGIH TLV
Media (filter paper, sampling cassette, sample tube with adsorbent) (99.999%)	none	None

\*Metal or inorganic/organic compounds in trace amounts (<0.001% i.e. <1000 microgram range)

### SECTION 3 PHYSICAL & CHEMICAL CHARACTERISTICS

**Physical Description:** solid (fabric, paper, filter cartridge, or glass tube)

**Odor:** none

**Boiling Point:** none

**Vapor Pressure:** none

**Melting Point:** none

**Specific Gravity:** n/a

**Solubility in Water:** insoluble

**Vapor Density (Air=1):** n/a

## SECTION 4 FIRE AND EXPLOSION DATA

**Fire and Explosion Hazard:** Filter paper media and plastic cassettes will burn if exposed to an ignition source. This product does not ignite easily and will not self-ignite. It is not an explosion hazard.

**Flash Point:** n/d

**Auto-Ignition Temperature:** n/d

**Lower Flammability Limit:** n/d

**Upper Flammability Limit:** n/d

**Extinguishing Method:** Use water, Carbon Dioxide or Dry Powder fire extinguisher in the event of fire of this material.

**Special Fire Fighting Procedures:** Maintain safe distances and apply extinguishing media. Fire fighters should wear self-contained breathing apparatus and full protective equipment.

**Hazardous Decomposition Products:** May emit toxic fumes under very high temperature fire conditions. Hazards from fire would include carbon monoxide and carbon dioxide. Vinyl chloride or styrene might be present in the smoke of a burning plastic cassette.

## SECTION 5 REACTIVITY DATA

**Stability:** Expected to be stable under normal conditions.

**Conditions to avoid:** Very high heat and open flame

**Incompatibilities:** none known

**Polymerizations:** Will not occur under normal conditions.

**Hazardous Decomposition or Byproducts:** Carbon monoxide, vinyl chloride, styrene.

## SECTION 6 HEALTH HAZARD DATA

**Typical Routes of Exposure:** Not a hazardous product in the concentration present. Metals, inorganic and organic compounds concentration is too low to be a significant hazard.

**Health Effects of Acute Exposure:** Contact of this product with skin, eyes, or respiratory tract is not expected to cause irritation or toxic effects. Extensive experience and handling of this type sample has not indicated any hazard.

**Health Effects of Chronic Exposure:** Adverse effects of long term exposure are unknown, but caution is prudent.

**Signs and Symptoms of Exposure:** Exposure to chemicals at the concentration present in the samples is not expected to produce reddening, swelling or irritation of the skin and respiratory passages.

**Carcinogenicity:** All components are below the concentrations that trigger inclusion if listed as a regulated carcinogen under OSHA criteria.

**Medical Conditions Aggravated by Exposure:** No existing medical conditions are known to be affected by acute or chronic exposure.

### First Aid & Emergency Procedures

**Skin contact:** No adverse effect expected.

**Eye Contact:** Flush eyes with water for at least 15 minutes. Seek medical attention immediately.

**Inhalation:** Remove to fresh air. Administer oxygen if breathing is difficult and seek medical attention immediately. If not breathing, give artificial respiration.

**Ingestion:** If conscious, give large amounts water. Seek medical attention immediately.

**Note:** Seek medical treatment after any exposure if discomfort or symptoms persist.

## SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

**Special Precautions for Handling and Use:** No special handling or personal protective equipment is typically required.

**Steps to be Taken in Case of Release or Spill:** Collect spilled powder in a manner that does not produce significant airborne dust hazards, such as HEPA vacuuming or careful sweeping. Do not use high pressure air to disperse dust.

**Waste Disposal Method:** Follow all applicable local, State, and Federal regulations.

**Precautions for Storage:** Do not store this material in contact with incompatible materials. Store material away from heat and flames.

## SECTION 8 CONTROL AND PROTECTION MEASURES

**Note:** The samples are not known to have any toxic effects. Extensive experience with this type product at many locations has not produced acute effects under routine handling and operations.

**Respiratory Protection:** If thermal decomposition products are generated, use engineering controls to eliminate hazardous atmospheres. Engineering controls may be augmented by a NIOSH approved respirator as part of a respiratory protection program that complies with OSHA regulations. Supplied air respirators are required in emergency situations.

**Ventilation: Local Exhaust:** acceptable                      **Mechanical (General):** acceptable  
Ventilation is typically not needed to handle these samples. If an operation will generate dust or decompose these sample holder, ventilation should be used to keep airborne dust/vapor levels as low as reasonable achievable and below the occupational exposure limits.

**Protective Gloves:** Gloves are not typically required when handling this product.

**Eye/Face Protection:** Use safety glasses should be used during handling of glass tubes.

**Work/Hygiene Practices:** Wash hands after handling and before smoking or eating.

## SECTION 9 REGULATORY DATA

OSHA Hazard Communication Standard: NON-HAZARDOUS

HMIS Rating: (estimated) Health: 0 Flammability: 0 Reactivity: 0 Other: (none)

EPA SARA Title III

Tier 1 & 2:

Acute Health:	no
Chronic Health:	no
Fire:	no
Reactivity:	no
Sudden Pressure Release:	no

Extremely Hazardous Substance List: not known

Threshold Planning Quantity: not known

EPA Waste No.: not determined

TSCA Status: yes

D.O.T./UN Number: n/d

D.O.T. Classification: n/d

n/a= not applicable or not available

n/d= not determined

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**Date Prepared:** December 28, 2011

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